CORONA DIVISION
NAVAL SURFACE WARFARE CENTER

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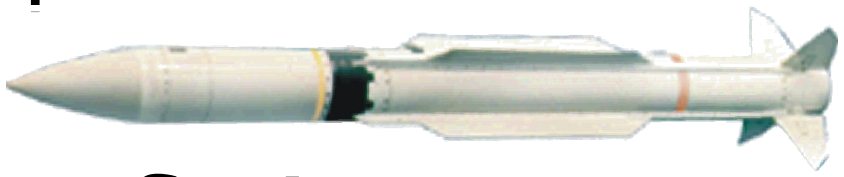
STANDARD Missile UID Integration Pilot Project Review

NSWC Corona Product Engineering
Assessment Department
24 October 2005

And Then OSD Said… Let There Be UID

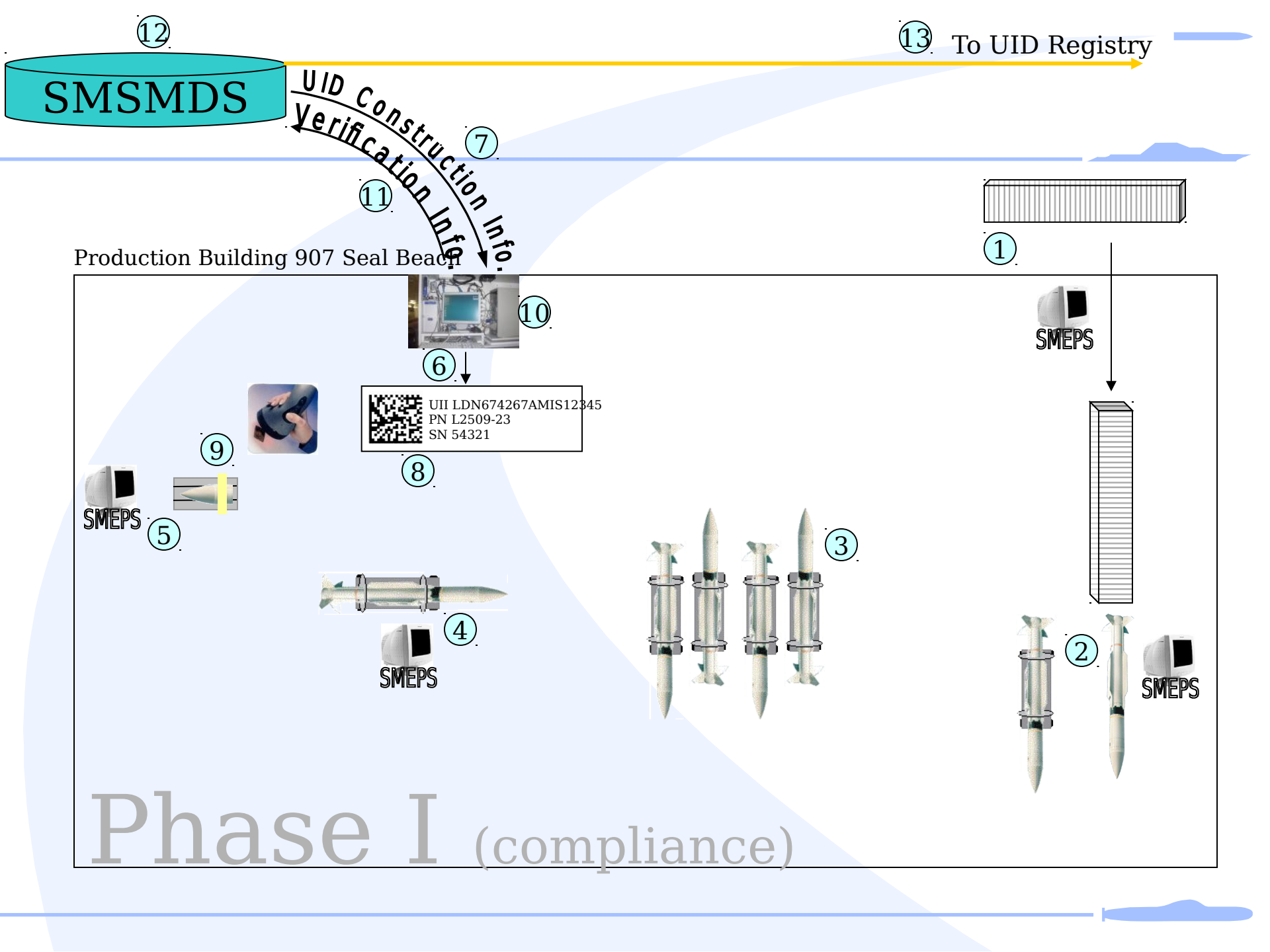
- **UID +**
- **Legacy Hardware +**
- **New Hardware +**
- **Existing Information System**
- **= UID STANDARD Missile Pilot Project**



August 2005 Pilot Project Begins

GOALS & OBJECTIVES (PHASE I)

1. Identify all STANDARD Missile Hardware needing UID
2. Identify processes to
   - Apply UID on all hardware
   - Generate the UII content
   - Generate the Human Readable Content
3. Initiate the Marking Process
4. Modify the Database to interact with UID
5. Upload Information to the UID Registry


12
SMSMDS
13
To UID Registry
UID Construction Info.
Verification Info.
7
11
Production Building 907 Seal Beach
1
SMEPS
10
6
UII LDN674267AMIS12345
PN L2509-23
SN 54321
8
9
SMEPS
5
4
SMEPS
3
2
SMEPS
Phase I (compliance)

Players

- OSD
- DASN
- NAVSEA
- Seal Beach
- Pt Hueneme
- USMC
- STANDARD Missile (IWS-3A)
- UID Prog. Office
- Raytheon
- RVSI
- CSC
- Corona

PERFORMANCE & CHALLENGES

1. Identify all STANDARD Missile Hardware needing UID (Done)
2. Identify processes to (Waiting Prog. Office Concurrence)
   - Apply UID on all hardware
   - Generate the UII content
   - Generate the Human Readable Content
3. Initiate the Marking Process (Waiting on Hardware Procurement)
4. Modify the Database to interact with UID (Done)
5. Upload Information to the UID Registry

Procurement of H/W to print compliant labels is wa
for Program Office concurrence. Prog. Office
UID meeting scheduled Nov. 1st.

All STANDARD Missile VUID's successfully uploaded
practice UID Registry. Connection to Registry valid

PERFORMANCE & CHALLENGES

- Establish safety approved UID marking procedures (Risk = Low, affixing labels - recommended solution)
- Incorporating UID procedures into maintenance cycle: (Risk = Low, NWS Seal Beach provides single point to mark H/W)
- Finding Useful UII
  (Risk = Low, DoDAAC + ProgID + Database Key)
- UID Marking procedures will not affect Missile Performance (Risk = Low, Current Drawings give specifications for Decalcomania)
- Contractor/Government Coordination Document
  (Risk = Moderate, Unknown impact on contract)

USN & DOD BENEFITS

USN Short-Term	USN Long-Term	DOD UID Program
Improve Inventory Control	More Accurate Condition Based Maintenance	Enable cross program data mining
Automate Data Input	Less “Noise” in Reliability data	Example for Legacy H/W (Missiles)
Enhance Process Control	More Accurate Diagnostics & Prognostics	Knowledge of Asset Readiness

MAJOR DELIVERABLES

- Guide for Implementation of MIL-STD-130L for STANDARD Missile
- Initiate Proof of Concept Demonstration
  - UID Marking & Reading
  - Data Collection & Storage
  - Report Output
- Top Level System Requirements for the Advanced Maintenance Information System (AMIS)

LESSONS LEARNED

- All Up Rounds (Canister & Missile pair) exchange pieces. UID identification for the pair should be avoided.
- Reserializing seems the best way to manage H/W with serial number duplication.
- Construct #1 (25S) is the best option for us to re-serialize. It’s also the best for minimizing the DataMatrix size.

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LESSONS LEARNED

- Information Systems would benefit if documents they process (viz. DD250, and shipping docs) had the UID DataMatrix printed on them ready for scanning.
- We have created S/W tools that would be useful to others going through the same process. (generating the DataMatrix, Parsing the DataMatrix completely)
- Legacy Issues
  - Redundant Serial Numbers or Limited Space
  - Using OEM cage code requires coordination with Manufacturer.

QUESTIONS & ANSWERS